

Appl. No. : **10/038,098**
Filed : **October 19, 2001**

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for monitoring performance of a transactional server as seen by end-users of the transactional server, the method comprising:
 - executing a transaction between an agent running on a client computer at a remote end-user location and a transactional server, wherein the transaction includes a sequence of uniform resource locator (URL) requests transmitted from the agent to the transactional server over a network;
 - measuring time durations between predefined events that occur during execution of the transaction, the measurements being made by the agent;
 - using the measured time durations to automatically calculate at least a network time representing an amount of time attributable to the network and a server time representing an amount of time attributable to the transactional server; and
 - displaying a break down of time involved in completion of the transaction into multiple components, including at least said network time and said server time[[],]; wherein the steps of executing, measuring and displaying are performed by one or more computers on ~~the~~ a network.
2. (Original) The method of Claim 1, wherein measuring time durations between predefined events includes measuring a domain name system (DNS) lookup time.
3. (Original) The method of Claim 1, wherein measuring time durations between predefined events includes measuring a time required to establish an initial connection between the agent and the transactional server.
4. (Canceled)
5. (Canceled)
6. (Original) The method of Claim 1, wherein measuring time durations between predefined events includes measuring a time duration between the agent receiving a first buffer of data from the transactional server and the agent receiving a last buffer of data from the transactional server.

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7. (Original) The method of Claim 1, wherein measuring time durations between predefined events includes measuring a time spent by the agent processing the transaction on the client.

8. (Original) The method of Claim 1, wherein displaying a break down of time includes displaying an amount of time spent in resolving a domain name for the transactional server into an internet protocol address for the transactional server.

9. (Original) The method of Claim 1, wherein displaying a break down of time includes displaying an amount of time spent in establishing an initial connection between the client computer and the transactional server.

10. (Original) The method of Claim 1, wherein displaying a break down of time includes displaying an amount of time spent by the agent processing a transaction on the client computer.

11. (Previously presented) The method of Claim 1, wherein displaying a break down of time includes displaying at least one of the following: a DNS resolution time, a connection time, a client time, a server/network overlap time.

12. (Original) The method of Claim 1, further comprising:

executing the transaction from each of a plurality of geographically distributed locations; and

displaying a break down of at least network time and server time for the transaction from each of the plurality of locations, whereby an administrative user of the transactional server may compare the network and server times for the transaction as seen by end users in each of the plurality of locations.

13. (Currently amended) A system for monitoring performance of a transactional server as seen from an end user location, the system comprising:

an agent component that communicates with the transactional server over a network to execute a transaction, and measures time periods between predefined events that occur during execution of the transaction; and

a report generation component that generates a transaction breakdown display based on the time periods measured by the agent component, the transaction breakdown

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display indicating a breakdown of a total transaction response time into multiple components, including at least a network time representing an amount of said total transaction response time that is attributable to the network, and a server time representing an amount of said total transaction response time that is attributable to the transactional server, said network time and server time generated using said time periods measured by the agent component[[],];

wherein the said agent component and the said report generation component are run on one or more computers on ~~the~~ a network.

14. (Canceled)

15. (Currently amended) The system of Claim 13, wherein the multiple components further include a client time.

16. (Currently amended) The system of Claim 14 13, wherein the multiple components further include a connection time and a DNS resolution time.

17. (Currently amended) The system of Claim 14 13, wherein the multiple components further include a server/network overlap time.

18. (Original) The system of Claim 13, wherein the transaction comprises multiple uniform resource locator requests.

19. (Previously presented) The system of Claim 13, wherein the agent component measures a time taken to establish an initial connection with the transactional server.

20. (Canceled)

21. (Canceled)

22. (Previously presented) The system of Claim 13, wherein the agent component measures a time duration between the agent receiving a first buffer of data from the transactional server and the agent receiving a last buffer of data from the transactional server.

23. (Previously presented) The system of Claim 13, wherein the agent component measures a time spent by the agent processing the transaction on the client.

24. (Original) The system of Claim 13, further comprising a component that analyzes data collected by the agent component to identify correlations in time between degradations in

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transaction response times and degradations in the components of such transaction response times, to thereby facilitate identification of causes of end user performance problems.

25. (Currently amended) A method for monitoring performance of a server system, the method comprising:

receiving data from a plurality of computers in a plurality of geographic locations indicating time spent by a server in processing transaction requests from each of the plurality of computers;

receiving data from the plurality of computers indicating time spent by a network in processing the transaction requests; and

generating a report page with graphical representations of the time spent by the server and the time spent by the network for each of the plurality of geographic locations to facilitate a determination of whether network and server delays are location dependent;

wherein said time spent by the server and said time spent by the network are measured via agent software executed by said plurality of computers;

wherein said generating is performed ~~via agent software executed by said plurality of computers, by a computer on a network;~~

wherein the agent software communicates over the network with the server to execute transactions, and measures time durations between predefined events that occur during execution of said transactions;

wherein the time durations measured by the agent software are used to calculate said time spent by the server and said time spent by the network.

26. (Previously presented) The method of Claim 25, further comprising receiving data from the plurality of computers indicative of, and displaying representations of, at least one of the following: client time, DNS resolution time, connection time, server/network overlap time.

27. (Currently amended) A method of monitoring performance of a transactional server as seen from a remote user location, the method comprising:

executing a transaction between a client computer in the remote user location and the transactional server, wherein the transaction comprises a sequence of URL requests passed from the client computer to the transactional server over a computer network;

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on the client computer, measuring time durations between predefined events that occur during execution of the transaction;

using the measured time durations to calculate at least a network time representing an amount of time attributable to the computer network and a server time representing an amount of time attributable to the transactional server; and

~~displaying, at the a client computer, generating, at a reports server, a report that includes~~ a break down of time involved in completion of the transaction into multiple components, including at least said network time and said server time.

28. (Previously presented) The method of Claim 27, wherein the network time represents an amount of said total execution time that is attributable to the computer network, and the server time represents an amount of said total execution time that is attributable to the transactional server.

29. (Previously presented) The method of Claim 27, wherein the report graphically breaks down the total execution time of the transaction into the multiple components.

30. (Previously presented) The method of Claim 27, further comprising calculating the network time by summing multiple constituent time durations measured on the client computer.

31. (Currently amended) The method of Claim 27, wherein the method step of measuring the time durations is performed by execution of agent software on the client computer.

32. (Canceled)

33. (Previously presented) The method of Claim 1, wherein using the measured time durations to calculate the network time and the server time comprises averaging measured time durations from multiple executions of the transaction, such that the network and server times represent averages.

34. (Previously presented) The system of Claim 13, wherein the transaction breakdown display indicates average time durations of each of the components.